

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A method for predicting an increased risk for onset of open angle glaucoma in a human subject, comprising the steps of:

(a) assaying a polynucleotide sample from a human subject for the presence of at least one nucleotide mutation in the coding region of the optineurin (OPTN)-~~gene~~ polynucleotide set forth in SEQ ID NO:1, wherein said nucleotide mutation is selected from the group consisting of a ~~mutation~~ substitution of G for A at position 619 of SEQ ID NO:1 and a ~~mutation~~ substitution of A for G at position 898 of SEQ ID NO:1; and

(b) predicting an increased risk for onset of open angle glaucoma in said human subject when at least one of said nucleotide mutations is present.

2. (canceled)

3. (canceled)

4. (currently amended) The method according to claim 1, wherein the presence of the mutation at position 619 is assayed by performing nucleic acid amplification on a

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U.S. Application. No.: 10/627,757
Attorney Docket No: Q76319

polynucleotide sample obtained from said human subject using at least one oligonucleotide primer pair selected from the group consisting of:

- (a) an oligonucleotide primer pair consisting of the nucleotide sequences of SEQ ID NOs:21 and 22; and
- (b) an oligonucleotide primer pair wherein each member of the primer pair is a complement of one member of the oligonucleotide primer pair of (a).

5. (currently amended) The method according to claim 1, wherein the presence of the mutation at position 898 is assayed by performing nucleic acid amplification on a polynucleotide sample obtained from said human subject using at least one oligonucleotide primer pair selected from the group consisting of:

- (a) an oligonucleotide primer pair consisting of the nucleotide sequences of SEQ ID NOs:27 and 28; and
- (b) an oligonucleotide primer pair wherein each member of the primer pair is a complement of one member of the oligonucleotide primer of (a).

6-13. (canceled).